



**Aalto University
School of Chemical
Technology**

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Mikael Pernu

**MONETISING MOBILE GAMES:
INFLUENCING GAMERS TO PAY FOR PLAYING**

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Supervisor

Professor Petri Parvinen

Instructor

D.Sc. Juho Hamari

Author Mikael Pernu

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Thesis supervisor Petri Parvinen

Thesis advisor Juho Hamari

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Abstract

This study investigated how mobile game companies influence gamer purchase behaviour when monetising their premium and free-to-play games. These approaches include methods and strategies that aim to acquire, retain, and then finally monetise players.

Videography was used as the method to investigate and illustrate how iOS-based mobile games are monetised. The 40-minute videography part of this study (found at <https://youtu.be/VS48tO2noow> or <https://vimeo.com/217374348>) is comprised of interview footage with three mobile game professionals from two Helsinki-based companies and gameplay footage from 13 mobile games to illustrate topics discussed.

This study found that the interviewed mobile game companies emphasise, firstly, the role of game design in monetising players, especially in free-to-play games. For monetisation, virtual goods and advertising are employed and designed as a part of the core game experience. Secondly, game companies care for their player community and design social game mechanics to acquire new players and retain existing ones. These activities include social media presence, managing an in-game community, and designing game mechanics that encourage players to play with their friends. Lastly, promotion and pricing strategies persuade players to increase purchase intention. These strategies include becoming featured on the App Store and in game media, promotion methods, such as time and placement-limited special offers, and psychological pricing methods, such as odd pricing and price anchoring.

The findings illustrated the range of influence approaches that game companies consider. However, a small, non-diverse sample size of interviewed game professionals and their local, Nordic point of view limit the conclusions from this study. Nevertheless, this study observed new ideas for literature and recommended further research based on these findings, regarding advertising and game design, the importance of the App Store in mobile game development, and the effect of the relationship between players and game companies on player retention and monetisation.

Keywords game monetisation, free-to-play, premium, mobile game, videography

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Tiivistelmä

Tutkimuksessa selvitettiin, kuinka mobiilipeliyritykset vaikuttavat pelaajien ostopäätöksiin monetisoidessaan premium- ja free-to-play-pelejä. Nämä lähestymistavat sisältävät metodeita ja strategioita, joilla pyritään hankkimaan, säilyttämään ja lopulta monetisoimaan pelaajia.

Tutkimusmetodina käytettiin videografiaa selvittämään ja havainnollistamaan, kuinka iOS-mobiilipelejä monetisoidaan. 40-minuuttinen videografiaosuus tutkimuksesta (<https://youtu.be/VS48tO2noow> tai <https://vimeo.com/217374348>) sisältää kuvamateriaalia haastatteluista kolmen mobiilipelialan ammattilaisen kanssa kahdesta eri peliyrityksestä. Lisäksi videografiassa esitetään kuvamateriaalia 13 mobiilipelistä havainnollistamaan haastatteluissa käsiteltyjä aiheita.

Tutkimuksen perusteella haastatellut mobiilipeliyritykset korostavat ensinnäkin pelisuunnittelun roolia pelaajien monetisoinnissa – etenkin free-to-play-peleissä. Tällöin monetisoinnissa käytetään virtuaalihyödykkeitä ja mainostusta osana pelikokemusta. Toiseksi peliyritykset huolehtivat pelaajayhteisöstään ja suunnittelevat sosiaalisia pelimekaniikkoja uusien pelaajien hankkimiseksi ja vanhojen säilyttämiseksi. Tällainen toiminta sisältää läsnäolon sosiaalisessa mediassa, pelin sisäisen pelaajayhteisön hallinnoimista ja pelimekaniikkoja, jotka kannustavat pelaajia pelaamaan ystäviensä kanssa. Viimeiseksi pelaajia suostutellaan ostopäätöksiin mainostus- ja hinnoittelustrategioiden avulla. Näihin strategioihin sisältyvät promootio App Store -kauppapaikassa ja pelimedioissa, aika- ja paikkarajoitteiset erikoistarjoukset sekä psykologiset hinnoittelumetodit, kuten parittomat hinnat ja hinta-ankkurit.

Tutkimustulokset havainnollistivat eri vaikuttamiskeinojen määrää, vaikka pieni, yhdenmukainen otanta haastateltavia peliammattilaisia ja näiden paikallinen, pohjoismaalainen näkökulma rajoitti tutkimuksesta tehtävien johtopäätösten vaikuttavuutta. Tästä huolimatta tutkimus havainnoi kirjallisuudelle uusia ilmiöitä ja suositteli näiden perusteella uusia selvityksiä. Tällaisia tutkimuksessa suositeltuja tutkimusaiheita ovat mainostamisen ja pelisuunnittelun yhteys, App Storen merkittävyys mobiilipelien kehittämiselle ja pelaajien sekä peliyrityksen välisen suhteen vaikutus pelaajien säilyttämiselle ja monetisoinnille.

Avainsanat pelimonetisaatio, free-to-play, premium, mobiilipeli, videografia

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Appendix 1: Videography (DVD)

1 Introduction

This study investigates how mobile game companies influence gamer purchase behaviour when monetising their premium and free-to-play games.

The first chapter introduces the research phenomenon, study aim and research problems, and the limitations for this study. The second chapter defines both free-to-play and premium mobile game monetisation. The third chapter introduces the methodology: videography, the selection of case companies and mobile games, and the specific research settings for interviews and the videography. The fourth chapter summarises the appended videography part of this study (Appendix 1, found also at <https://youtu.be/VS48tO2n0ow> or <https://vimeo.com/217374348>), and discusses its findings with literature. Finally, the fifth and last chapter summarizes the findings of this study, draws conclusions based on the findings, and suggests avenues for future research.

1.1 Background

Mobile devices have become a substantial and necessary part of everyday life. These devices, including mobile phones and tablet computers, have become everyday objects in both professional and private use. Demand for entertainment through mobile applications or apps has grown immensely.

Mobile games have become one of the most popular type of mobile apps. In Apple's App Store, games frequent the top revenue producing charts and the games category has the most apps to offer (Hyrnsalmi et al. 2012; Brockmann, Stieglitz and Cvetkovic, 2015). The market for mobile game entertainment is significant: for example, in North America alone it amounted to \$5.4 billion in 2015, and is estimated to grow to \$7.2 billion by the year 2018 (Electronic Entertainment Design and Research, 2016).

Game monetisation models refer to revenue models that game companies use. Traditionally, games are sold as copies: a customer pays a full price to

download the game and then gets to enjoy the gaming experience (Marchand and Hennig-Thurau, 2013). However, free-to-play revenue models, including advertising and sales of in-game virtual goods in otherwise free games, have become the prevalent and most monetarily successful way to monetize mobile games. Free-to-play seems to have become the default approach on the mobile game market, with few games as exceptions. (Marchand and Hennig-Thurau, 2013; Hamari, Hanner and Koivisto, 2017)

Thus, this shift in the mobile game market has expanded the traditional game sales funnel model into a diverse set of monetisation mechanics and approaches for game designers to choose from. Today, revenue models for mobile game companies include consumer sales, sales of in-game virtual goods, and advertising. (Marchand and Hennig-Thurau, 2013; Hamari, Hanner and Koivisto, 2017) This thesis specifically analyses these three types of monetisation.

1.2 Study aim and research phenomenon

The aim of this study is to find and analyze the distinct methods, game mechanics and strategies that game companies utilize when monetizing their games. Thus, the researched phenomenon is:

How do mobile game companies influence gamer purchase behaviour?

The goal is to understand how much thought and effort game companies put into selecting monetisation approaches. As this study focuses on insider insight from game companies themselves, the whole range of methods should be discussed – ranging from practical techniques to abstract strategies. Therefore, we focus on ethnographically investigating how the companies themselves consider monetizing their games.

These specific methods of influence that mobile game companies utilize or might utilize include designing game mechanics that lower the barrier to make purchases, such as in-game virtual goods and time-based limits to progress in

gameplay (Hamari and Lehdonvirta, 2010; Jacobs and Sihvonen, 2011; Hamari and Järvinen, 2011; Park and Lee, 2011a; Park and Lee, 2011b; van Meurs, 2011; Ho and Wu, 2012; Nieborg, 2015; Hamari et al. 2016; Hamari and Keronen, 2016); community management and social game mechanics, including management of word-of-mouth, in-game social and personalization mechanics, and encouragement to invite friends into games (Herr, Kardes and Kim, 1991; Kim, Gupta and Koh, 2011; Shang, Chen and Huang, 2012; Paavilainen et al. 2013; Alha et al. 2014; Nieborg, 2015; Alha et al. 2016; Jankowski, Bródka and Hamari, 2016; Lehtonen and Harviainen, 2016); promotion and pricing strategies, including price framing, price anchoring, odd pricing, and special offers (Harlam et al. 1995; Heath, Chatterjee and France, 1995; Gendall, Holdershaw and Garland, 1997; Mazumdar, Raj and Sinha, 2005); and advertising in online, offline, and in-game contexts (Acquisti and Spiekermann, 2011; Marchand and Hennig-Thurau, 2013; Terlutter and Capella, 2013; Nieborg, 2015; Burns, Roseboom and Ross, 2016).

Furthermore, this research touches on the larger discussion of why new games are created in the first place. Mobile games are a new market, and thus, it is interesting if this expansion into mobile is mainly driven by the seek for profits. We investigate the attitudes and context behind monetisation methods and strategies.

1.3 Limitations of the study

This study has a local perspective into the mobile game market. The following two limitations mostly derive from narrowing down potential case companies, and thus, this study does not grant broad generalizations.

Firstly, sections 2 and 4 investigate academic and industry journals and publications with a global perspective. However, the videography section and thus, the results of this study, are only based on two Helsinki-based case companies that produce mobile games for the App Store. Therefore, these companies cannot fully represent experiences from the global game creator community – they do so only from a Nordic perspective. This entails, for

example, Nordic companies mostly competing on international markets, while sharing experiences and expertise with other Nordic game companies and establishing company cultures with low hierarchies (Jørgensen, Sandqvist and Sotamaa, 2015). In addition, the Finnish legal system, culture, and other aspects of life might affect priorities that the case companies set.

Secondly, this study focuses on games produced for the Apple iPhone and iPad markets, which are then published and distributed through Apple's App Store. The two dominant app ecosystems on the market are the App Store and Google's Google Play. Of these two, the App Store is more interesting from a revenue point-of-view, since the willingness to pay for apps and services is significantly higher in users of App Store than of Google Play. (Roma and Ragaglia, 2016)

2 Mobile game monetisation

This study categorizes mobile game monetisation models into two different classes: premium and free-to-play. Premium revenue models rely on all players paying for their gaming experience, while free-to-play models utilize a diverse set of approaches to monetize the game content. These free-to-play approaches include selling exclusive in-game content to players and showing advertisements. On the other hand, fully free games do not adhere to any monetisation model, and are thus irrelevant to this study.

This section discusses the main characteristics of both premium and free-to-play revenue models.

2.1 Premium games

In the premium revenue model, gamers purchase a copy of a game for a fixed price, ranging usually between \$0.99 and \$19.99 (Electronic Entertainment Design and Research, 2016). They then receive either a physical or digital copy of the game. In the case of mobile games, gamers receive a permanent right to download the game to their gaming device from a centralized virtual store. (Marchand and Hennig-Thurau, 2013) For example, iOS-based games are sold and distributed through Apple's App Store. (Nieborg, 2015)

One of the most known examples in mobile gaming is Angry Birds, which is one of the most downloaded mobile games in the App Store. This original Angry Birds game, created by Rovio, was published in 2009 and priced at \$0.99 (Wilson et al. 2011). By 2014, it had been downloaded over 2.5 billion times, and at least 12 official spin-off games had been produced. (Leaver, 2016)

However successful premium games have been, Apple's introduction of *in-app purchases* in 2009 dramatically changed how games are monetized. This has led into the decline of premium mobile games. Even influential game

companies behind successful premium games, such as Rovio and Electronic Arts, have adopted free-to-play revenue models as their default for new games. (Nieborg, 2015)

2.2 Free-to-play games

Free-to-play refers to a range of revenue models, mainly including sales of virtual goods and sometimes advertising. Free-to-play games are free to download and play, while players may buy additional in-game benefits. Most players do not pay for their gaming experience, but some do, and these players can choose how much they want to spend, based on their preferences, commitment, and ability to pay. This allows free-to-play games to have vastly more price points, compared to premium games' single price points. (Hamari and Järvinen, 2011; Marchand and Hennig-Thurau, 2013; Paavilainen et al. 2013; Nieborg, 2015)

Virtual goods are in-game content that are sold to players to enhance their game experience. Such purchases usually take the form of in-game items, characters, extra lives and game currency. (Lehdonvirta, 2009; Hamari and Lehdonvirta, 2010; Paavilainen et al. 2013; Hamari and Keronen, 2016) Virtual goods serve a plethora of purposes, presenting functional, hedonistic, or social value to players. Functional items increase the player's performance, helping them reach gameplay goals faster. Hedonistic and social items allow players to express themselves through aesthetic, rare or customizable pieces of virtual clothing, decorations, and gear. (Lehdonvirta, 2009)

For players to access virtual goods, free-to-play games usually utilize a two-currency system with both soft and hard currencies. Soft currency is regularly rewarded through basic gameplay, whereas hard currency is sold for real money and scarcely available without purchase. These both currencies are then used to purchase virtual goods in the game world. (Hamari and Lehdonvirta, 2010; Alha et al. 2016)

Some free-to-play games employ advertisements in their games, utilizing in-app advertising. In-app advertisements usually appear as interstitials (full-screen images), banners and short videos. These ads mostly showcase other apps or games, and are shown to specific players in specific situations of the game companies' choosing. (Terlutter and Capella, 2013; Nieborg, 2015; Burns, Roseboom and Ross, 2016)

Due to the wide range of potential revenue streams, free-to-play permits metrics-driven development. Developers can tweak and update their game and marketing based on data from actual players playing the game, making purchases, and interacting with advertisements. (Paavilainen et al. 2013; Nieborg, 2015) While only a minority of players become payers – for example, only 3% of players of King's free-to-play games are payers – free-to-play has become the most significant monetisation strategy in the mobile game market. (Nieborg, 2015; Alha et al. 2016; Hamari, Hanner and Koivisto, 2017)

3 Methodology

This study comprises of a written segment and a videography, containing interviews of two case companies. The videography is the data component of the study, while the written segment discusses the background, methodology, and discussion for the researched phenomenon.

The first subsection discusses videography as a research method and about its potential drawbacks. The second subsection explains how the case companies are selected. The third and last subsection explains and evaluates specific research settings, such as sample sizes and videographical decisions, used in this study.

3.1 Videography

In this study, the main method for collecting and representing data is through *videography*. Videography is an audio-visual form of qualitative research, allowing presentation and discussion of video-based data collected through market research interviews, naturalistic observation, autoethnography, or through combining previously sampled video content. (Belk and Kozinets, 2005) Videographies may contain both a text-based segment and a documentary-like video presentation, or just the video presentation. In this study, both text and video-based segments are utilized.

Videography was selected as the method of study due to the three following reasons:

Firstly, videotaped interviews express the phenomena with more nuance and detail when compared to interview transcripts. For instance, video communicates body language, mood, and interview environments much more explicitly than written transcripts. (Belk and Kozinets, 2005)

Secondly, games are audio-visual entertainment. Videography allows presenting supplementary video material to exemplify or contextualise the interviewee's communication. (Belk and Kozinets, 2005) For example, this study's interviewees speak about their games, and thus, video clips of gameplay material are used to visually demonstrate concepts discussed in the interview.

Thirdly, in this study, the supplementary content is recorded autoethnographically and observationally. These refer to introducing an explicit researcher's point-of-view to the game experiences, showing viewers the researcher or others playing the gameplay situations that are discussed in the interviews. This allows the viewer to interpret consumer experiences directly from recorded video as well as using videography's strengths as an audio-visual research medium (Belk and Kozinets, 2005).

However, videography has drawbacks and potential pitfalls as a research method. Videographies are edited pieces of research, which is to say that they are not complete documentations of everything the researcher has seen or recorded. The post-production process gives the researcher larger freedom and responsibility omit irrelevant footage from the finished video presentation. This makes the researcher's partly subjective role explicit, while also presenting a possibility for manipulation through emotional and audio-visual trickery by means of framing, editing or score. (Belk and Kozinets, 2005)

Consequently, viewers of academic videographies must obtain a visual literacy to critically review video-based research (Belk and Kozinets, 2005), similarly than with the written research medium. Visual literacy will take time to develop in the field marketing research, although, videography is not a new method in academy or marketing research, as Hietanen (2012) notes.

To conclude, videography has gained traction as a method for research in the domains of marketing and consumer culture theory. However, videographies studying the games market – neither from the consumer nor producer sides –

have not been presented yet. Thus, this study bears some significance in bringing the game producer culture into academic discussion.

3.2 Selection of case companies and mobile games

This thesis focuses on Finnish gaming companies that produce games suitable for Apple's iOS-based handheld devices, namely iPhones and iPads. Two case companies, with three interviewees, are selected based on company size and the difference between the type of games published.

The first company, Playraven, has 20–25 employees and has published three free-to-play strategy titles: Spymaster (Playraven, 2014), Robocide (Playraven, 2016), and Winterstate (Playraven, 2016). Spymaster is a spy-themed strategy game based in a World War II setting. Robocide is a level-based micro RTS (real-time strategy) game with players controlling swarms of robots with their finger. Winterstate is a post-apocalyptic RTS game with trading and combat elements.

From Playraven, two game developers are interviewed: Teemu Haila and Gabriele Aimone. Haila is the vice president and a co-founder at Playraven, with 11 years of experience in the game industry. Aimone is an associate producer at Playraven, and has previously worked in the support team at Supercell.

The second company, Muro Studios, is a company of now two co-founders. Muro Studios has published three titles: Shadow Bug (Muro Studios, 2016), Shadow Bug Rush (Muro Studios, 2016), and Bro Fist Simulator (Muro Studios, 2016). Shadow Bug is a premium action-adventure platform game with a unique art style. Shadow Bug Rush is an endless runner platformer game, which is a free-to-play version of Shadow Bug. Bro Fist Simulator is a humoristic free-to-play cooperative simulator game.

From Muro Studios, we interview co-founder and graphic designer Juha Ylimäki. Ylimäki and his co-founders made their first game – Shadow Bug – as a course project, which then led them to found Muro Studios.

Other mobile games and applications shown in the videography are, in order of appearance: App Store (Apple, 2008), Angry Birds (Rovio, 2009), Subway Surfers (Kiloo, 2012), Clash Royale (Supercell, 2016), Superbrothers: Sword & Sworcery EP (Superbrothers and Capybara Games, 2011), Hay Day (Supercell, 2012), Clash of Clans (Supercell, 2012a), and Bad Piggies (Rovio, 2012).

3.3 Research settings

The videography is assembled from 5 hours of video material, including 3 hours of interview and 2 hours of gameplay video.

Three interviewees from two companies enclose a rather small and non-diverse sample size. Nevertheless, a purposively sampled group is suitable, if it adequately helps understand and discuss the researched phenomena (Creswell, 2003). In addition, as Miles and Huberman (1994) note, a small yet well-selected sample is enough to represent the differences between research participants in qualitative research. In this study, the researched field of phenomena is broad, and thus, this study focuses on gathering a wide set of specific player acquisition, retention, and monetisation methods, especially those scarcely discussed in prior literature. For this purpose, the sample size of interviewees is sufficient, especially as they gain time and space on screen to provide industry best practices and then context to the discussed topics.

On the other hand, fifteen mobile games and four social media sites are discussed or showcased on the videography. Belk and Kozinets (2005) propose using this kind of supplementary material to enhance the final video report. These specific games are explored, either as they were published by the interviewed game companies, they bear relevance through literature, they

represent well a discussed phenomenon or influence method, or they purely contribute to the videography visually.

The interviews are conducted at the offices or workplaces of the companies during work hours, to ensure that the interviewees feel comfortable participating before and during the interview situations. In addition, at their working environments, the interviewees could speak as mobile game developers from their professional viewpoints. This helps framing the interviewees as game professionals speaking about context and stories from their professional experience.

Martin, Schouten and McAlexander (2012) suggest that the production team conducting the interview should comprise of both interviewers and videographers in the team. In this study, the production team consisted only of the researcher, doubling as an interviewer and videographer at the same time, using only a static camera and microphone in the interview situations. A separate videographer would allow shooting “B-roll” material to capture non-interview images, environments and moments that enliven the final videography (Martin, Schouten and McAlexander, 2012). In this study, instead of B-roll material, the videography was illustrated with observational gameplay footage shot outside of the interview situations. This approach was chosen to better illustrate the phenomena discussed in the interviews, and to allow the researcher conduct the interviews alone.

Regarding videographic quality, this study follows the quality criteria for the theatrical and technical aspects of videographies, as suggested for consumer culture theory videographies by Kozinets and Belk (2006).

The theatricality criterion is pursued through the structure of the videography and its three main parts. Theatricality is achieved through the structure of the videography: the story unfolds questions are being answered and emotional states are experienced (Kozinets and Belk, 2006). In this study, this is pursued with having the more trivial discussions from the interviews edited into the middle of each part, whereas stories and more in-depth discussions

situated in the beginnings and endings. In addition, changes in score are used to reflect transitions into new topics and mental states. Interviewees tell personal stories and express their feelings, which brings context and emotional storytelling value that videographies tend to aim for (Kozinets and Belk, 2006).

The technical criterion ensures that the videography meets the demand for high production values. Regarding the technical criterion, the interviews are conducted with care and attention to video quality and sound design. For example, the footage is shot with a shallow depth of field to construct intimacy with the interviewees and shown mobile phones. In post-production, interview footage, gameplay footage, narration, and score are combined to produce a high-quality audio-visual end product.

4 Influencing gamer purchase behaviour

Influencing gamer purchase behaviour includes methods and strategies that aim to acquire, retain, and monetise players. In this section, we summarize the findings from the 40-minute videography part of this study (Appendix 1, found also at <https://youtu.be/VS48tO2n0ow> or <https://vimeo.com/217374348>) and discuss them in the context of literature.

Firstly, we discuss game design as marketing. Game design plays a great part in acquiring, retaining, and monetising players in free-to-play games. For monetisation, free-to-play games employ virtual goods and sometimes advertising. Game design plays a lesser part in premium games' monetisation, as the games are sold upfront.

Secondly, we investigate the importance of the community gathered around a game or a company, and having a strong relationship with that crowd. In addition, we explore social game mechanics that help a game acquire and retain players, linking back to game design's relevance.

Lastly, we examine promotion and pricing strategies, which include the importance of promoting games through the centralized distribution system and industry-specific media – in this case the App Store and game media – and specific psychological promotion and pricing methods for increasing purchase intention.

4.1 Game design as marketing

Hamari et al. (2016) observe a change in the design philosophy of games, rising from free-to-play revenue models and especially sales of in-game content. Game developers increasingly create games that are not only enjoyable, but which are optimized for selling as much in-game content as possible. This optimization includes data-driven approaches to acquire, engage, and monetize players (Paavilainen et al. 2013; Nieborg, 2015);

implementing game mechanics that create demand for in-game content and encourage repeat purchases (Hamari and Lehdonvirta, 2010); and analysing and predicting player behaviour to keep and monetize existing players (Hadiji et al. 2014; Sifa et al. 2015).

In free-to-play games, as Haila points out, players can either spend time or money to reach the highest tier of gameplay. Some players have more time than money, and some choose to instead pay for progressing faster in the game. Haila feels that it is important that both these player groups can play against each other in the same way, without the game exposing who chose which route to arrive to the same level of gameplay.

Different virtual goods are relevant to the player, depending on the gameplay progression. Players are more willing to purchase virtual goods, if they have positive attitudes toward the virtual goods in the game (Hamari, 2015). For example, if the game has the player collecting characters or other collectibles, the game might sell shortcuts to acquiring the collectibles they want. Haila offers Spymaster as an example: players wanting to express themselves through their character collections, for example by gathering an all-female “Charlie’s Angels” spy team, can collect their desired collection faster by purchasing the cards they want.

Haila also mentions that in Robocide, players earn virtual goods during gameplay. However, if players purchase these same goods, the game rewards free goods to the purchasing player’s fellow clan members. This incentivises players to use money to purchase these virtual goods, as the donations are announced to other players, and thus, the paying players receive an additional social reward. When this donation game mechanic was introduced, 75 % of Robocide’s in-app purchases were due to this mechanic. This is an example of a game mechanic, which encourages repeat purchases.

In addition, as players lose in the game, players can pay to recover from their losses faster, or as Haila refers to it: “pay not to lose”. For example, if one of the player’s characters dies in Spymaster, they can revive the character by

paying rather than playing the game until they make that character available again.

In-game currency is used to purchase virtual goods. In *Shadow Bug Rush*, players collect the in-game currency until they die in the never-ending levels. With this currency, they can purchase new characters to play with.

When a free-to-play game employs the two-currency system, the hard currency costs money and is rarely or slowly rewarded through gameplay. However, if players do not want to purchase in-game hard currency, they can instead watch advertisements to receive hard currency or other virtual goods as rewards. Haila refers to these kind of advertisements as “reward ads” or “rewarded video ads”. These 5–30 second video ads are chosen by the advertising network and they usually showcase other mobile games.

Regarding advertising in mobile games, past literature does not discuss the role of ads in mobile games beyond that they are shown to players and that they are a way to monetise a free-to-play game (Acquisti and Spiekermann, 2011; Marchand and Hennig-Thurau, 2013; Terlutter and Capella, 2013; Nieborg, 2015; Burns, Roseboom and Ross, 2016). However, similarly to virtual goods, ads are inherently connected with the game’s design and in-game atmosphere. For example, in *Robocide*’s in-game store, the button leading to an ad is identical to other store item buttons. In *Hay Day*, players can find a movie ticket laying on the ground, which takes to a menu resembling a movie theatre. Alha et al. (2016) note that the quality of shown ads must correlate with the game. Otherwise, the ad will also decrease the sense of quality of the game.

In-game advertising interruptions may result in negative reactions toward the shown brands (Acquisti and Spiekermann, 2011; Poels, Janssens and Herrewijn, 2013). However, Haila counters that the nonintrusive reward ads increase player retention. Non-paying players gain a way to pay for the game in the form of watching ads. *Playraven* has received feedback from non-paying players, who feel that they can participate the core gameplay

experience more through receiving hard currency from these advertisements. The connection between ads and game design, and their effect to player retention, invites more research.

In premium games, game design has a lesser role in this discussion, as the purchase of the game takes place upfront. Haila notes that premium games easily become a “one-trick pony”, which are enjoyed for a limited time. On the other hand, free-to-play games can be designed as long-term hobbies that encourage playing with other players.

Haila discusses the differences between a mobile game company creating premium and free-to-play games. In premium games, the developers will likely have to accept a lower pay, receiving possible bonuses after a monetarily successful game. In addition, premium games might lead to straining work hours during game development. On the other hand, according to Haila, free-to-play games support more sustainable, stable and scalable business models. Free-to-play games’ games-as-a-service approach also allows developers to tweak the game after publication to enhance player acquisition, retention, and monetisation (Paavilainen et al. 2013). These differences relate to the transition from premium to free-to-play games in the mobile game industry.

4.2 Community management and social game mechanics

Community management, including customer support, social media presence, and strong relationships between players themselves and the game developers, is vital for acquiring new players and retaining existing ones.

Firstly, game developers must put effort in creating great expectations about the game at rating and review sites and systems, ensuring that the game is credible and intriguing enough to become purchased or downloaded (Alha et al. 2016). For example, Lee and Raghu (2014) observe that in the App Store, higher average customer review scores both for a company and its apps increase apps’ survival rate in the top 300 charts. Users trust positively

reviewed apps from credible, positively reviewed sellers. However, on other review sites, free-to-play games might be reviewed lower on average compared to other games, while they are commercially more successful due to more active retention and monetisation mechanics (Alha et al. 2016).

Secondly, game developers manage and support their player communities, using social media and other communication channels for discussions, players sharing their game progress, and thus, promoting the game, and co-creating the game community with the players (Nieborg, 2015; Lehtonen and Harviainen, 2016). Social media channels, such as YouTube, Twitch, Facebook, and Twitter, are used to communicate outside the game.

For example, influential YouTube influencers might bring attention to games by showing their own gameplay to their followers, thus, promoting the game (Alha et al. 2016). Aimone explains that YouTube influencers reach out to game companies, wanting to showcase their games, especially with competitive games. Ylimäki emphasizes the importance of contacting YouTube and Twitch influencers, as game companies don't have much budget for marketing, and recounts when *Bro Fist Simulator* was played by a prominent YouTube influencer, which led into a noticeable increase in Muro Studio's website visitors.

Aimone maintains that Facebook and Twitter are still useful communications channels, though, they have become announcement tools. For example, Ylimäki describes Muro Studios publishing short animations on their social media channels, using appropriate hashtags and Facebook groups to target their audience.

In free-to-play games, creating a wide, thriving player community is critical to ensure attracting enough players to sustain the business, as only few players pay for playing (Nieborg, 2015; Lehtonen and Harviainen, 2016). In community creation, Aimone notes the role of a game company is mostly reactive: they respond to communication and feedback from players. Nevertheless, when launching new games, game developers proactively

create channels and tools for players to communicate with each other and the company.

As the community grows, developers can create and distribute content to help players arrange events and other community activities. For example, Aimone suggests that players themselves will co-create the community, if the game company understands the community's needs quickly enough. Lehtonen and Harviainen (2016) recognize this in Clash Royale: players and clans have co-designed the game, with Supercell using player feedback and suggestions to improve the game's core social mechanics.

Lastly, in multiplayer games, game companies encourage players to play together through various social game mechanics, including in-game communities, such as guilds and clans, in-game customer support, and ways of self-expression through gameplay and virtual goods (Kim, Gupta and Koh, 2011; Shang, Chen and Huang, 2012; Alha et al. 2016; Lehtonen and Harviainen, 2016).

Aimone suggests that game companies should direct longer discussions into the game platform. With this in-game communication, the developers can gather and tag discussion data. Aimone notes that today all communication is possible through the game, compared to past times, when players had to quit the game to communicate to other players through forums or other channels. These in-game communication methods, such as guild and global chats are essential for the game experience, and sometimes a core part of the gameplay (Choi and Kim, 2004; Lehtonen and Harviainen, 2016). Aimone describes guild chats as suitable platforms for strategizing and global chats useful for recruiting new players into a guild.

In addition, Aimone introduces the importance of in-game customer support. In mobile games, play sessions are more frequent, though shorter, than in other games (Evans, 2016). Thus, if something goes wrong in a play session, players demand quick responses from the customer support. In addition, players and the support team have a closer bond, as players become familiar

with the support team and the barrier to contact them becomes low. For example, Aimone recounts a story, when a player contacted customer support to ask them for help to arrange a gameplay situation for the player to propose to his girlfriend.

When crafting game mechanics, social aspects should be considered. For example, gifting virtual goods and helping others bring additional enjoyment (Lehtonen and Harviainen, 2016). Haila uses the donation mechanic in Robocide again as an example. Other players become grateful for the donated virtual goods, which then again socially incentivises to purchase and donate virtual goods repeatedly. In addition, social game mechanics enhance retention, as social pressure, especially when playing with friends, motivates players to return to the game to accomplish team-based gameplay goals (Lehtonen and Harviainen, 2016).

Players might want to express themselves through gameplay or virtual goods (Kim, Gupta and Koh, 2011; Shang, Chen and Huang, 2012). However, Aimone has not encountered any successful mobile games that encourage players to use virtual goods to change the appearance of player characters. Instead, players express themselves more through their gameplay style.

Furthermore, Haila discusses the evolution of player expression in mobile games. Today, most games allow shallow ways of expression, for example, by showcasing a player's village to other visiting players (Paavilainen, Alha and Korhonen, 2016). This might even influence purchase intentions, as players believing or seeing other players using or owning virtual goods increases adoption and engagement with virtual goods (Hamari, 2015; Jankowski, Bródka and Hamari, 2016). However, Haila believes that in future games, players can play together in shared game environments and create content with artistic value, while other players review and rank this player-created content.

In competitive and challenge-based games, leader boards and high scores are used to accommodate players, who would like to compete against others

or themselves (Paavilainen et al. 2015). Aimone notes that the competitive aspects in games retain players, especially if players can play with their friends through social media integrations.

For player acquisition, players are encouraged to share invitations, recommendations, ratings, and their game progress to their social media networks. For example, word-of-mouth, specifically positive recommendations, plays an important part of acquiring new customers. (Herr, Kardes and Kim, 1991) As positive ratings and reviews on the App Store help a gamer to determine, whether to purchase or download a game (Lee and Raghu, 2014), these encouragements are usually built into the game mechanics (Nieborg, 2015; Alha et al. 2016). For example, Shadow Bug prompts the player to rate the game after playing for a while, and allows players to share their level high scores through Twitter after clearing a level. King's Candy Crush Saga persuades its players to connect their Facebook accounts to share their progress (Nieborg, 2015).

4.3 Promotion and pricing strategies

Promotion strategies are used to ensure that gamers find a game through the App Store, recommendations from friends or other promotion channels. Pricing strategies are then used to entice gamers to make a purchase. In free-to-play games, these promotion and pricing strategies are used to ensure that some of the players end up as paying users (Hamari and Lehdonvirta, 2010).

Firstly, the getting featured on the front page of the App Store is important for the discoverability of a mobile game. Haila mentions that it is difficult to discover unfeatured games, as only featured games are shown on the App Store's front page. Ensuring that a mobile game becomes featured and survives in the top charts is difficult, as the App Store is the highly competitive, centralised distribution channel for iOS-based mobile games (Lee and Raghu, 2014; Nieborg, 2015). In addition, two of the interviewees recounted memorable moments from their careers concerning having a game featured.

While the significance of the App Store for the mobile game industry has been noted in literature (Nieborg, 2015), there are few mentions regarding the importance of mobile games getting featured in the App Store. The difference between featured and unfeatured games should attract more research in the future.

Secondly, outside of the App Store, game media is a way to promote and bring credibility to a game and its developers, though critical acclaim and the success of a game do not always correlate in mobile games (Alha et al. 2016). Aimone notes that articles help creating momentum and differentiating from other games and game companies, whereas Haila describes the credibility it brings to a game company.

Thirdly, in addition to social promotion mechanics discussed in section 4.2, game companies use promotion strategies, such as special offers and discounts, to promote their game or in-game content. These strategies might include offers with time and placement limitations and bundling sellable items together (Harlam et al. 1995; Grewal et al. 2011). Regarding free-to-play games, Haila explains an example from Star Wars themed mobile games regarding regularly held promotional events: players can only acquire certain rare characters if they participate in these events. Players must perform burdensome tasks to become eligible to purchase these characters, and to complete these tasks, they might need some other specific characters with distinct attributes. During these events, the game promotes time-limited offers for purchasing these other characters, allowing the players to complete all tasks and acquire the desired rare character. Thus, Haila explains, if the game developers understand the current and desired progress of players, and the barrier between these states, they can create more creative promotional campaigns than just simple discounts.

Premium games have less situations for using promotion strategies, as the games are purchased only once by players. Ylimäki recollects that Shadow Bug has only once been on a 50 % discount on the App Store, alongside an

update, which also became featured. However, these updates and price promotions on the App Store increase the survival rate in the App Store's top charts: Lee and Raghu (2014) observe that quality updates increase this survival rate threefold and price promotions 1.3 times.

Mobile games are advertised in other mobile games, as discussed in section 4.1. Game companies can promote their games in other games through advertising networks, whose functionality is inherently designed into the App Store ecosystem (Nieborg, 2015). In addition, companies can promote games through interstitials or other ads in their own games. For example, Shadow Bug promotes Shadow Bug Rush during various loading screens in the game.

Lastly, psychological pricing strategies are used to improve purchase intention, especially with virtual goods. These strategies include odd pricing and price anchoring and framing. Odd pricing refers to setting prices to end in other digits than zeros, commonly to 99 cents or \$9. Price anchoring and price framing change how customers perceive a price or change in that price during discount, thus, persuading the customer to make a purchase decision. (Heath, Chatterjee and France, 1995; Gendall, Holdershaw and Garland, 1997; Mazumdar, Raj and Sinha, 2005; Hamari and Lehdonvirta, 2010)

Haila describes the basic pricing strategies used in Playraven's games: price anchoring, with expensive virtual goods are used to set a higher expectation of the sold goods; price floors, not to sell goods below price levels that are not sustainable or sensible; and eliminating unnecessary price points to keep the options simple to understand. Haila advocates having a well-designed in-game store more than much effort optimising the exact prices for virtual goods.

Furthermore, deciding the exact prices might require intuition and referring to other games. Ylimäki explains the background behind Shadow Bug's 3.99 € price point: Muro Studios compared Shadow Bug to games similar in scale and genre, and decided on the price based on their prices.

In free-to-play games, games are designed to allow players paying as much as they want, regardless of the specific pricing structure. Haila clarifies that free-to-play games should not have ceilings for spending: players should always receive value for their money, however much they spend.

5 Conclusions

This study investigates how mobile game companies influence gamer purchase behaviour when monetising their premium and free-to-play games. The study finds that the interviewed mobile game companies emphasize, firstly, how game design plays a great part in acquiring, retaining, and then finally monetising players, especially in free-to-play games. For monetisation, virtual goods and notably advertising are employed and designed as a part of the core game experience. Secondly, to acquire new players and retain existing ones, game companies must care for the player community and design social game mechanics. These activities include social media presence, managing an in-game community, and designing game mechanics that encourage players to play with their friends. Lastly, promotion and pricing strategies persuade players to make purchase decisions. These strategies include becoming featured on the App Store and in game media, promotion methods, such as time and placement limited special offers, and psychological pricing methods, such as odd pricing and price anchoring.

This study uses the case game companies' experiences and expertise to contextualise some influence methods thoroughly researched in literature, such as virtual goods. Some presented topics from the videography are not as deeply discussed in literature, such as in-game advertising (Acquisti and Spiekermann, 2011; Marchand and Hennig-Thurau, 2013; Terlutter and Capella, 2013; Nieborg, 2015; Burns, Roseboom and Ross, 2016). and pricing structures that virtual goods allow (Hamari and Lehdonvirta, 2010), and this study produces deeper insight in such topics. In addition, some novel ideas to literature are presented: nonintrusive video advertising increasing player retention, the importance of gaining App Store's featuring with mobile games, game media's role in promotion, and the closer bond mobile game players might require or have with game companies through customer support or other in-game channels.

These implications, especially the new ones, might interest game developers or researchers in the fields of marketing and games research. The abundance of different influence methods and strategies presented, and the reasoning the interviewees deliver, might help contextualise phenomena from the mobile game industry, and thus, provide context to the discussion about premium or free-to-play games and the companies behind them. However, this study does not imply that influential conclusions can be based on the findings. The small, non-diverse sample size of interviewees and their local, Nordic point of view prevent generalisations from these findings. Rather, the implications of this study suggest new avenues for future in-depth research.

We can recommend some future research on specific topics discussed in this study. Firstly, we suggest researching the possible positive connection between player retention and optional, nonintrusive advertising. Secondly, regarding iOS-based mobile games, we propose analysing the importance of the App Store in mobile game development, specifically investigating the differences in success between featured and unfeatured games. For example, it could be intriguing to research the steps that mobile game companies take to ensure that their games become featured. Lastly, we propose further researching the effect of the relationship between players and mobile game companies on player retention and monetisation.

To conclude, mobile game monetisation started from a traditional premium sales model, rapidly evolving into a range of revenue models. Such progress will most likely continue, birthing innovative monetisation methods and strategies, and thus, the mobile game industry will continue to fascinate as a field of research.

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